

Page 3, line 21, after "increasing" insert -- and --.

Page 4, line 2, after "of" (first occurrence) insert -- a --.

Page 4, line 17, after "in" insert -- the --.

Page 5, line 16, delete "such".

Page 6, line 8, change "that" (second occurrence) to --then --,

Page 12, line 3, after "locations" insert -- in --.

Page 14, line 18, change "could" to -- code --.

Page 15, line 5, change "11" to -- 110 --.

Page 15, line 16, before "transmitted" insert -- can be --.

#### IN THE CLAIMS

Claim 1, line 1, change "an" (first occurrence) to -- a --.

#### REMARKS

Minor grammatical corrections have been made to the specification and claim 1. Claims 1 – 15 are pending in the application and are presented for reconsideration.

The Examiner rejected claims 1, 2, 5, 6, 7, 8, 9, 12, 13, 14, and 15 under 35 U.S.C. 103(a) as being unpatentable over *Barnstijn et al.*, U.S. Patent No. 5,600,790 further in view of *Ogata et al.*, U.S. Patent No. 5,758,124. This rejection is respectfully traversed. With respect to claims 1, 2, 7, 8, 9, 14, and 15, the Examiner states that *Barnstijn* discloses a method for developing and testing an application using a development system in which at least one program is used for testing an application on point of sale equipment by allowing the developer to provide input to

the application. *Barnstijn* teaches a method and system for loading and confirming correct operation of an application program in a target system. This occurs using a host system in communications with a target system that does not reside on the host system. The application being developed resides on a host system. The specialized devices of the real system that are controlled by the application reside on a target system and are connected to the host system via a communications channel.

This is in contrast to Applicants' invention, in which a system wholly contained on a single test system is used to test applications to be used on point of sales equipment. In the present application, there is no target system due to the use of emulation objects to simulate the specialized devices of the real systems during application development. All testing and development occur on the same system creating speed and efficiency in developing an application for point of sales equipment as stated in the summary (p. 3, lines 13 – 19). The present invention provides an emulation module corresponding to a point of sale device on the development system and ensures the application will use the emulation module when executed on the development system. *Barnstijn* fails to teach these steps. *Barnstijn* actually teaches away from the present invention since it requires the use of a development system that includes a host system and a target system that communicate with each other using a physical communications link. For these reasons, *Barnstijn* fails to teach or suggest the invention as claimed in claim 1.

The Examiner further states that *Ogata* discloses providing an emulation module and ensuring the application uses the emulation module. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to incorporate *Ogata*'s emulation module into *Barnstijn*'s system because in order to make sure the application being developed can be

successfully emulated and executed on the target system, one would need an emulation module further including objects for functionality purposes. *Ogata* discloses a computer emulator that operates on a target computer. The emulator taught by *Ogata* executes on a computer that is that is equipped at a minimum with an operation part, memory and input/output unit, and programs designed for a target machine, the target machine being a computer equipped with an architecture that is different from the architecture of the executing machine. The emulator comprises function modules that allow the executing machine to execute processes equivalent to processes that can be called via a jump table in a target machine, and a transfer controller that, when one of the processes in the target machine is called via said jump table, transfers the process to a corresponding one of said function modules in the executing machine prior to the actual onset of processing (col. 2, lines 23 – 36).

However, in the present invention, the emulators being created for use with point of sales equipment are not the same as those that would be used to emulate a target computer. In order to test the application for use with point of sales equipment, the devices that need emulation modules are scanners, scales, and keyboards and not that of target computer components taught as in *Ogata*. *Ogata* fails to teach or suggest an inclusion of point of sales equipment into the scope of computer emulation for a target computer system. Therefore, claim 1 should be allowable over *Barnstijn* in view of *Ogata*. Claims 8 and 14 are parallel system and program product claims, respectively, and should be allowable over the combination of references.

With respect to claim 2, the Examiner states that *Ogata* discloses providing an emulation object. The Examiner notes that he is interpreting "object" as the "kernel". As noted above, *Ogata* fails to teach an emulation object corresponding to a point-of-sale device. Thus, claim 2

should be allowable over the combined references. Likewise, system claim 9 should also be allowable over the combined art references.

With respect to claim 7, the combination of *Barnstijn* and *Ogata* fails to teach steps (a) and (b), which are the basic steps of claim 1. Furthermore, neither *Barnstijn* nor *Ogata* teach the steps of executing an application for a development system wherein the emulation module and the application emulate the interaction between the application and a device that occurs when the application is executed on the point-of-sale equipment. In addition, neither reference teaches ensuring that the application adequately uses the emulation object. Therefore claim 7 should be allowable over the combination of *Barnstijn* and *Ogata*.

With respect to claim 15, neither *Barnstijn* nor *Ogata* alone or in combination teach the steps of emulating the interaction between an application and a point-of-sale device, allowing a developer to provide input to the application in a form that is expected from the point-of-sale device. Therefore, claim 15 should be allowable over the combination of *Barnstijn* and *Ogata*.

With respect to claims 5, 6, 12, and 13, the Examiner further suggests that *Ogata* discloses that the point-of-sale equipment includes a driver and that the emulation object emulates the driver and device; however, *Ogata*'s drivers are those that are used to control devices used by a target computer and not that of point of sales equipment. There is no need to incorporate drivers necessary for the execution of a personal computer, except that of a keyboard, because the drivers used to emulate point of sales equipment in the present invention are for external devices such as scanners and scales and are not those that are found on a target computer. Since *Barnstijn* neither teaches nor suggests a system for testing applications for point of sales equipment on a single system and, *Ogata* fails to teach or suggest the emulation of point

of sales equipment, there is no motivation to combine these two inventions. Therefore method claims 5,6 and parallel system claims 12, 13 should be allowable over *Barnstijn* in view of *Ogata*.

The Examiner rejected claims 3, 4, 10 and 11 under 35 U.S.C. 103(a) as being unpatentable over *Barnstijn et al.*, U.S. Patent No. 5,600,790, further in view of *Ogata et al.*, U.S. Patent No. 5,758,124, and further in view of *Weber*, U.S. Patent No. 5,812,668. This rejection is respectfully traversed. The Examiner states that *Weber* discloses a platform independent application that is created in Java. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to make the application and the emulation object platform independent because in a computer environment, applications are constantly being changed and depending upon these changes, the platforms also need to be changed in order to fit the environment. He adds that it would have been obvious to make the application and emulation objects Java applications because Java is a common, distributed programming language that is simple and used for object-oriented programming in the application development art. The *Weber* invention concerns transmission of messages from a merchant-controlled computer representing the test transactions to a test gateway computer on a communications channel. The test gateway computer responds with simulated transaction responses (col. 4, lines 45 – 54). There is no teaching in *Weber* of platform independent emulation objects, and specifically, no teaching of a Java emulation object where the emulation object represents a physical device, such as a scanner, attached to a point-of-sale system. Therefore, claims 3, 4, 10, and 11 should be allowable over the combination of *Barnstijn*, *Ogata*, and *Weber*.

In view of the above, it is submitted that all grounds of the rejection have been properly traversed. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections, allow the claims and pass the application to issue. Such action at an early date is earnestly solicited.

Respectfully submitted,



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